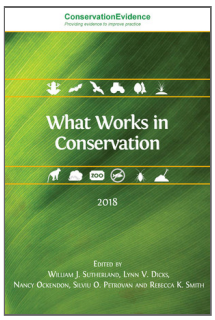

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7.12. Species management

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7.12 Species management

7.12.1 Species management

Based on the collated evidence, what is the current assessment of the effectiveness of interventions for species management?	
Likely to be beneficial	• Guard habituated primate groups to ensure their safety/well-being
Unknown effectiveness (limited evidence)	• Habituate primates to human presence to reduce stress from tourists/researchers etc. • Implement legal protection for primate species under threat
No evidence found (no assessment)	• Implement birth control to stabilize primate community/population size

Likely to be beneficial

Guard habituated primate groups to ensure their safety/ well-being

One study in Rwanda, Uganda and the Congo found that a population of mountain gorillas increased after being guarded against poachers, alongside other interventions. *Assessment: likely to be beneficial (effectiveness 60%; certainty 40%; harms 0%).*

https://www.conservationevidence.com/actions/1523

Unknown effectiveness (limited evidence)

Habituate primates to human presence to reduce stress from tourists/researchers etc.

Two studies in Central Africa and Madagascar found that primate populations increased or were stable following habituation to human presence, alongside other interventions. One study in Brazil found that golden lion tamarin populations declined following habituation to human presence, alongside other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 40%; certainty 20%; harms 10%).*

https://www.conservationevidence.com/actions/1519

Implement legal protection for primate species under threat

Three of four studies in India, South East Asia, and West Africa found that primate populations declined after the respective species were legally protected, alongside other interventions. One of four studies in India found that following a ban on export of rhesus macaques, their population increased. One study in Malaysia found that a minority of introduced gibbons survived after implementing legal protection, along with other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 40%; certainty 30%; harms 0%).*

https://www.conservationevidence.com/actions/1524

No evidence found (no assessment)

We have captured no evidence for the following interventions:

- Implement birth control to stabilize primate community/population size.

7.12.2 Species recovery

Based on the collated evidence, what is the current assessment of the effectiveness of interventions for species recovery?	
Unknown effectiveness (limited evidence)	• Regularly and continuously provide supplementary food to primates • Regularly provide supplementary food to primates during resource scarce periods only • Provide supplementary food for a certain period of time only • Provide additional sleeping platforms/nesting sites for primates • Provide artificial water sources
No evidence found (no assessment)	• Provide salt licks for primates • Provide supplementary food to primates through the establishment of prey populations

Unknown effectiveness (limited evidence)

Regularly and continuously provide supplementary food to primates

Two of four studies found that primate populations increased after regularly providing supplementary food, alongside other interventions, while two of four studies found that populations declined. Four of four studies found that the majority of primates survived after regularly providing supplementary food, alongside other interventions. One study found that introduced lemurs had different diets to wild primates after regularly being providing supplementary food, along with other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 50%; certainty 30%; harms 60%).*

https://www.conservationevidence.com/actions/1526

Regularly provide supplementary food to primates during resource scarce periods only

Two studies found that the majority of primates survived after supplementary feeding in resource scarce periods, alongside other

interventions. One study in Madagascar found that the diet of introduced lemurs was similar to that of wild lemurs after supplementary feeding in resource scarce periods, alongside other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 40%; certainty 10%; harms 10%).*

https://www.conservationevidence.com/actions/1527

Provide supplementary food for a certain period of time only

Six of eleven studies found that a majority of primates survived after supplementary feeding, alongside other interventions. Five of eleven studies found that a minority of primates survived. One of two studies found that a reintroduced population of primates increased after supplementary feeding for two months immediately after reintroduction, alongside other interventions. One study found that a reintroduced population declined. Two studies found that abandoned primates rejoined wild groups after supplementary feeding, alongside other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 40%; certainty 0%; harms 0%).*

https://www.conservationevidence.com/actions/1528

Provide additional sleeping platforms/nesting sites for primates

One study found that a translocated golden lion tamarin population declined despite providing artificial nest boxes, alongside other interventions. One of two studies found that the majority of gorillas survived for at least seven years after nesting platforms were provided, alongside other interventions. One of two studies found that a minority of tamarins survived for at least seven years after artificial nest boxes were provided, alongside other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 20%; certainty 0%; harms 0%).*

https://www.conservationevidence.com/actions/1530

Provide artificial water sources

Three of five studies found that a minority of primates survived for between 10 months and seven years when provided with supplementary water, alongside other interventions. Two of five studies found that a majority of

primates survived for between nine and ten months, when provided with supplementary water, alongside other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 20%; certainty 10%; harms 0%).*

https://www.conservationevidence.com/actions/1531

No evidence found (no assessment)

We have captured no evidence for the following interventions:

- Provide salt licks for primates
- Provide supplementary food to primates through the establishment of prey populations.

7.12.3 Species reintroduction

Based on the collated evidence, what is the current assessment of the effectiveness of interventions for species reintroduction?	
Likely to be beneficial	• Reintroduce primates into habitat where the species is absent
Unknown effectiveness (limited evidence)	• Translocate (capture and release) wild primates from development sites to natural habitat elsewhere • Translocate (capture and release) wild primates from abundant population areas to non-inhabited environments • Allow primates to adapt to local habitat conditions for some time before introduction to the wild • Reintroduce primates in groups • Reintroduce primates as single/multiple individuals • Reintroduce primates into habitat where the species is present • Reintroduce primates into habitat with predators • Reintroduce primates into habitat without predators

Likely to be beneficial

Reintroduce primates into habitat where the species is absent

One of two studies found that primate populations increased after reintroduction into habitat where the species was absent, alongside other interventions. One study in Thailand found that lar gibbon populations declined post-reintroduction. One study in Indonesia found that a orangutan population persisted for at least four years after reintroduction. Eight of ten studies found that a majority of primates survived after reintroduction into habitat where the species was absent, alongside other interventions. Two studies in Malaysia and Vietnam found that a minority of primates survived after reintroduction into habitat where the species was absent, alongside other interventions. *Assessment: likely to be beneficial (effectiveness 60%; certainty 40%; harms 0%).*

https://www.conservationevidence.com/actions/1590

Unknown effectiveness (limited evidence)

Translocate (capture and release) wild primates from development sites to natural habitat elsewhere

Four studies found that the majority of primates survived following translocation from a development site to natural habitat, alongside other interventions. One study in French Guyana found that a minority of primates survived for at least 18 months. One study in India found that rhesus macaques remained at sites where they were released following translocation from a development site to natural habitat, alongside other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 60%; certainty 30%; harms 10%).*

https://www.conservationevidence.com/actions/1558

Translocate (capture and release) wild primates from abundant population areas to non-inhabited environments

One study in Belize found that he majority of howler monkeys survived for at least 10 months after translocation from abundant population areas

to an uninhabited site, along with other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 50%; certainty 20%; harms 0%).*

https://www.conservationevidence.com/actions/1559

Allow primates to adapt to local habitat conditions for some time before introduction to the wild

Two of three studies found that primate populations declined despite allowing individuals to adapt to local habitat conditions before introduction into the wild, along with other interventions. One study in Belize found an increase in introduced howler monkey populations. Ten of 17 studies found that a majority of primates survived after allowing them to adapt to local habitat conditions before introduction into the wild, along with other interventions. Six studies found that a minority of primates survived and one study found that half of primates survived. One study found that a reintroduced chimpanzee repeatedly returned to human settlements after allowing it to adapt to local habitat conditions before introduction into the wild, along with other interventions. One study found that after allowing time to adapt to local habitat conditions, a pair of reintroduced Bornean agile gibbons had a similar diet to wild gibbons. *Assessment: unknown effectiveness — limited evidence (effectiveness 50%; certainty 10%; harms 0%).*

https://www.conservationevidence.com/actions/1564

Reintroduce primates in groups

Two of four studies found that populations of introduced primates declined after reintroduction in groups, alongside other interventions, while two studies recorded increases in populations. Two studies found that primate populations persisted for at least five to 55 years after reintroduction in groups, alongside other interventions. Seven of fourteen studies found that a majority of primates survived after reintroduction in groups, alongside other interventions. Seven of fourteen studies found that a minority of primates survived after reintroduction in groups, alongside other interventions. One study found that introduced primates had a similar diet to a wild population. *Assessment: unknown effectiveness — limited evidence (effectiveness 50%; certainty 20%; harms 0%).*

https://www.conservationevidence.com/actions/1567

Reintroduce primates as single/multiple individuals

Three of four studies found that populations of reintroduced primates declined after reintroduction as single/multiple individuals, alongside other interventions. One study in Tanzania found that the introduced chimpanzee population increased in size. Three of five studies found that a minority of primates survived after reintroduction as single/multiple individuals, alongside other interventions. One study found that a majority of primates survived and one study found that half of primates survived. Two of two studies in Brazil and Senegal found that abandoned primates were successfully reunited with their mothers after reintroduction as single/multiple individuals, alongside other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 20%; certainty 10%; harms 0%).*

https://www.conservationevidence.com/actions/1589

Reintroduce primates into habitat where the species is present

One of two studies found that primate populations increased after reintroduction into habitat where the species was absent, alongside other interventions. One study in Malaysia found that an introduced orangutan population declined post-reintroduction. One study found that a primate population persisted for at least four years after reintroduction. Eight of ten studies found that a majority of primates survived after reintroduction into habitat where the species was absent, alongside other interventions. Two studies found that a minority of primates survived after reintroduction into habitat where the species was present, alongside other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 50%; certainty 30%; harms 0%).*

https://www.conservationevidence.com/actions/1591

Reintroduce primates into habitat with predators

Eight of fourteen studies found that a majority of reintroduced primates survived after reintroduction into habitat with predators, alongside other interventions. Six studies found that a minority of primates survived. One study found that an introduced primate population increased after reintroduction into habitat with predators, alongside other interventions.

Assessment: unknown effectiveness — limited evidence (effectiveness 50%; certainty 10%; harms 0%).

https://www.conservationevidence.com/actions/1593

Reintroduce primates into habitat without predators

One study in Tanzania found that a population of reintroduced chimpanzees increased over 16 years following reintroduction into habitat without predators. *Assessment: unknown effectiveness — limited evidence (effectiveness 50%; certainty 5%; harms 0%).*

https://www.conservationevidence.com/actions/1592

7.12.4 *Ex-situ* conservation

Based on the collated evidence, what is the current assessment of the effectiveness of interventions for *ex-situ* conservation?	
Unknown effectiveness (limited evidence)	• Captive breeding and reintroduction of primates into the wild: born and reared in cages • Captive breeding and reintroduction of primates into the wild: limited free-ranging experience • Captive breeding and reintroduction of primates into the wild: born and raised in a free-ranging environment • Rehabilitate injured/orphaned primates • Fostering appropriate behaviour to facilitate rehabilitation

Unknown effectiveness (limited evidence)

Captive breeding and reintroduction of primates into the wild: born and reared in cages

One study in Brazil found that the majority of reintroduced golden lion tamarins which were born and reared in cages, alongside other interventions, did not survive over seven years.

Two of two studies in Brazil and French Guiana found that more reintroduced primates that were born and reared in cages, alongside other interventions, died post-reintroduction compared to wild-born monkeys. *Assessment: unknown effectiveness — limited evidence (effectiveness 0%; certainty 15%; harms 0%).*

https://www.conservationevidence.com/actions/1594

Captive breeding and reintroduction of primates into the wild: limited free-ranging experience

One of three studies found that the majority of captive-bred primates, with limited free-ranging experience and which were reintroduced in the wild, alongside other interventions, had survived. One study in Madagascar found that a minority of captive-bred lemurs survived reintroduction over five years. One study found that reintroduced lemurs with limited free-ranging experience had a similar diet to wild primates. Reintroduction was undertaken alongside other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 30%; certainty 10%; harms 0%).*

https://www.conservationevidence.com/actions/1595

Captive breeding and reintroduction of primates into the wild: born and raised in a free-ranging environment

One study in Brazil found that the majority of golden lion tamarins survived for at least four months after being raised in a free-ranging environment, alongside other interventions. One study found that the diet of lemurs that were born and raised in a free-ranging environment alongside other interventions, overlapped with that of wild primates. *Assessment: unknown effectiveness — limited evidence (effectiveness 40%; certainty 10%; harms 0%).*

https://www.conservationevidence.com/actions/1596

Rehabilitate injured/orphaned primates

Six of eight studies found that the majority of introduced primates survived after rehabilitation of injured or orphaned individuals, alongside other interventions. One study found that a minority of introduced primates survived, and one study found that half of primates survived. One of two studies found that an introduced chimpanzee population increased in size after rehabilitation of injured or orphaned individuals, alongside other

interventions. One study found that an introduced rehabilitated or injured primate population declined. One review found that primates living in sanctuaries had a low reproduction rate. One study found that introduced primates had similar behaviour to wild primates after rehabilitation of injured or orphaned individuals, alongside other interventions. *Assessment: unknown effectiveness — limited evidence (effectiveness 50%; certainty 10%; harms 0%).*

https://www.conservationevidence.com/actions/1597

Fostering appropriate behaviour to facilitate rehabilitation

Three of five studies found that a minority of primates survived after they were fostered to encourage behaviour appropriate to facilitate rehabilitation, alongside other interventions. Two studies found that the majority of reintroduced primates fostered to facilitate rehabilitation along other interventions survived. Three studies found that despite fostering to encourage behaviour appropriate to facilitate rehabilitation, alongside other interventions, primates differed in their behaviour to wild primates. *Assessment: unknown effectiveness — limited evidence (effectiveness 10%; certainty 10%; harms 0%).*

https://www.conservationevidence.com/actions/1600